Case 2962

D.L.G. Karsten (1789), *Museum Leskeanum*, vol. 1 (Regnum Animale): proposed suppression for nomenclatural purposes

G. Rosenberg

Malacology Department, Academy of Natural Sciences, 1900 Benjamin Franklin Parkway, Philadelphia, PA 19103-1195, U.S.A.

Abstract. The purpose of this application is to propose the suppression of D.L.G. Karsten's *Museum Leskeanum* (1789) for nomenclatural purposes on the grounds that the availability of his new molluscan names would disturb the stability of nomenclature and that the work is not consistently binominal. Only one of Karsten's molluscan names had been used until Duchamps & Tursch (1994) claimed that *Museum Leskeanum* was an available work on the grounds that it was no less binominal than Röding's *Museum Boltenianum* (1798), which was placed on the Official List in Opinion 26 (1926). Tursch, Duchamps & Greifeneder (1994) have replaced two well-known molluscan names with Karsten names. Other names by authors such as Gmelin (1791) and Röding (1798) are threatened with displacement as junior synonyms or homonyms.

Keywords. Nomenclature; taxonomy; D.L.G. Karsten; *Museum Leskeanum* (1789); Mollusca.

---

1. *Museum Leskeanum* (1789) by Dietrich Ludwig Gustav Karsten (1768–1810) is a two volume work describing the collections of Nathanael Gottfried Leske (1751 1786). The first volume covers zoology, the second mineralogy. The zoological part, 'Regnum Animale', contains six sections entitled Mammalia, Aves, Amphibia, Pisces, Insecta, and Vermes. New names are introduced for birds, insects, mollusks, and barnacles; most new taxa are illustrated on eight colored plates (two for birds, three for insects and three for mollusks). The section on insects was authored by J.J. Zschach and was published separately the previous year (1788); the other sections were written by Karsten. Leske's mineral collection was purchased by the Royal Dublin Society in 1798 (Cleevely, 1982), but the fate of his shell collection is not known — it was not treated by Dance (1986) in the standard reference on the location of mollusk collections.

2. Zschach's 136-page section on insects is clearly non-binominal, with no distinction between names and descriptions of the new taxa; it has been rightly ignored by entomologists. However, the availability of names in the sections written by Karsten should not be influenced by the non-binominal nature of Zschach's section. Sherborn (1902) did not note Karsten's work as non-binominal, and listed those of his new names for birds and mollusks that were accompanied by illustrations (except *Conus aulicus* var. *singularis*; see para. 7).

3. Karsten's section on birds is binominal, but his three new bird names, *Certhia longicauda* (p. xvi), *Pipra tricolor* (p. xxiii), and *Trochilus maximus* (p. xvii), although

accompanied by illustrations, have been ignored by ornithologists. None of these specific names is in current use and I have found none in 19th and 20th century synonymies that I have examined; they are not mentioned in Peters (1931–1987). Ornithologists I have consulted are unable to identify the illustrations to species level. Thus, the availability of Karsten's portion of *Museum Leskeanum* should be determined by a consideration of the 'Vermes' section, which includes new names for a number of mollusks and two barnacle species.

4. For most molluscan species, Karsten gave bibliographic references to earlier works, primarily Linnaeus (1767), Born (1780) and Martini & Chemnitz (1769–1788). Martini & Chemnitz's work, *Neues Systematisches Conchylien-Cabinet*, was rejected by the Commission on the grounds that the authors had not consistently applied the principles of binominal nomenclature (Opinion 184, 1944; Direction 1, 1954). When Karsten cited species from Linnaeus (1767) and Born (1780) he used those authors' binominal names. When he cited species from Martini & Chemnitz (1769–1788) he in some cases failed to make the names binominal. The great majority of the names in the 'Vermes' section are binominal, and many others that at first glance appear to be non-binominal can be interpreted as being binominal. There are a few names, however, that cannot be interpreted in this way, for example, *Pinna haud ignobilis* and *Trochus leviter muricatus*. Because of such inconsistencies, Karsten's names for mollusks have generally been dismissed by malacologists as being non-binominal. For example, Vokes (1971, p. 114) noted that *Murex varicosus* Karsten was unavailable since it was proposed in a non-binominal work. In the copy of *Museum Leskeanum* at the Academy of Natural Sciences of Philadelphia, a former curator of malacology penciled 'Non-binomial — R.T. Abbott 1962' on the first page. Until 1994, only a single Karsten name for a mollusk had been used as valid by malacologists: *Nerita reticulata* (p. 296), for example by Pilsbry (1888, p. 21); however, this taxon is now known as *Nerita signata* Lamarck, 1822.

5. Duchamps & Tursch (1994) have argued that Karsten's *Museum Leskeanum* (1789) should be considered binominal. They claimed that its few departures from binominal nomenclature are no more severe than those in Röding's *Museum Boltenianum* (1798), which was accepted by the Commission as available (Opinion 96, 1926) and placed on the Official List (Direction 48, 1956). This comparison is unsound since the availability of Röding's work was doubted not because of questions of adherence to binominal nomenclature but because many workers refused to accept a sales catalogue of limited distribution as a valid nomenclatural work (see Rehder, 1945). All apparently trinominal names in *Museum Boltenianum* either include a name subspecific in intent or have a compound word as the specific name (Rosenberg, 1994). Röding's work therefore is entirely consistent with binominal nomenclature. Although Duchamps & Tursch (1994) picked a poor example, the principle of their argument has some merit, for some early works on mollusks are accepted despite minor departures from binominal nomenclature. For example da Costa (1778) has three two-word genera, *Buccina Canaliculata* (p. 120), *Buccina Recurvirostra* (p. 130), and *Buccina Longirostra* (p. 133); species named in these genera have been treated as if named in *Buccinum* Linnaeus, 1758.

6. A more fundamental problem than the few non-binominal names in *Museum Leskeanum* is the serious disruptions to nomenclature that would result from considering it to be available. Duchamps & Tursch (1994) did not point out these

consequences. Many names of Gmelin (1791), Röding (1798) and other authors would be displaced, because Karsten would become the first source giving indications to many of the figures of Martini & Chemnitz. Pfeiffer (1840) and Richardson et al. (1979) compiled early references to Martini & Chemnitz figures but did not consider Karsten's work. If Karsten's (1789) work were accepted as a source of names, at least 30 names in current use would be displaced, and another 14 would be affected by change of authorship, as shown in the following table; all are mollusks except the first two which are barnacles. Names in the second column are based in whole or in part on the same Martini or Chemnitz (1769–1788) figures and so are mostly objective synonyms of Karsten's names. Homonyms that could not be objective synonyms are listed in brackets in the second column. The third column gives the current names for the species, as far as I can trace them. Thirty-four Karsten names that themselves are probable junior synonyms or homonyms are not listed. Whether Bruguière (1789) has priority over Karsten (1789) is unknown.

Karsten name (page)	**Synonym or homonym**	**Current name**
Lepas coarctata (149)	*Balanus perforatus* Bruguière, 1789	*Balanus perforatus*
L. spinosa (149)	*B. spinosus* Bruguière, 1789	*Megabalanus spinosus*
Mya oblonga (152)	*Mya oblonga* Gmelin, 1791	*Lutraria oblonga*
Tellina spengleri (156)	*Tellina spengleri* Gmelin, 1791	*Tellina spengleri*
T. inflata (156)	*T. inflata* Gmelin, 1791	*Tellina inflata*
T. polygona (156)	*T. multangula* Gmelin, 1791	?*Gastrana multangula*
Venus lusoria (163)	*Venus lusoria* Röding, 1798	*Meretrix lusoria*
V. nebulosa (164)	*V. nebulosa* Gmelin, 1791	*Marcia opima* (Gmelin, 1791)
V. cordato-literata (164)	*V. japonica* Gmelin, 1791	*Marcia japonica*
V. striata (165)	*V. striata* Gmelin, 1791	*Marcia japonica*
V. cincta (166)	*V. cincta* Gmelin, 1791	?*Ventricolaria rigida* (Dillwyn,1817)
Spondylus variegatus (170)	*Spondylus variegatus* Röding, 1798	*Spondylus variegatus*
Chama lamellosus (172)	*Chama foliacea* Gmelin, 1791	?*Chama congregata* Conrad, 1833
	[non *C. lamellosa* Lamarck, 1806]	*Chama lamellosa*
Arca rhomboidalis I. Orient. (173)	*Arca inaequivalvis* Bruguière, 1789	*Scapharca inaequivalvis*
Pinna haud ignobilis (186)	*Pinna nobilis* Gmelin, 1791 (var. δ)	*Pinna carnea* Gmelin, 1791
Conus vexillum (191)	*Conus vexillum* Gmelin, 1791	*Conus vexillum*
C. achatinus (192)	[non *C. achatinus* Gmelin, 1791]	*Conus achatinus*
Cypraea scurro (200)	*Cypraea scurra* Gmelin, 1791	*Cypraea scurra*
Voluta olivacea (216)	*Oliva guttata* Fischer, 1807	*Oliva tessellata*
	O. tessellata Lamarck, 1811	
V. nigrita (216)	*Porphyria vidua* Röding, 1798	*Oliva vidua*
V. magellanica (225)	*Voluta magellanica* Gmelin, 1791	*Odontocymbiola magellanica*
Buccinum scalariforme (237)	*V. nassa* Gmelin, 1791	*Scalptia nassa*
	[non *B. scalariforme* Möller, 1842]	*Buccinum scalariforme*
Murex varicosus (265)	*Neptunea varicosa* Röding, 1798	*Pseudoneptunea varicosa*
Trochus radiatus (268)	*Trochus radiatus* Gmelin, 1791	*Trochus radiatus*
T. leviter muricatus (272)	*T. stellatus* Gmelin, 1791	*Trochus stellatus*
	[non *T. muricatus* Linnaeus, 1758]	
T. cookianus (270)	*T. cookii* Gmelin, 1791	*Cookia sulcatus* (Gmelin, 1791)
T. declive Ind. Occ. (270)	*T. tectum* Gmelin, 1791	*Modulus tectum*
T. fenestratus imperforatus (273)	*T. fenestratus* Gmelin, 1791	*Tectus fenestratus*
T. apiarium chinense (267)	*T. alveare* Gmelin, 1791	? *Tectus fenestratus*
T. acutangulus (267)	*T. conus* Gmelin, 1791	*Tectus conus*
T. tuberosus (273)	*T. mauritianus* Gmelin, 1791	*Tectus mauritianus*

Karsten name (page)	Synonym or homonym	Current name
Turbo cidaris pers. (275)	*T. cidaris* Gmelin, 1791 (var. β)	*Turbo cidaris*
T cidaris rufescens (275)	*T. cidaris* Gmelin, 1791 (var. Σ)	*Turbo cidaris*
T. castaneus Ind. Occ. (276)	*T. castanea* Gmelin, 1791	*Turbo castanea*
T. delphinus nodosus (279)	*T. exasperatus* Dillwyn, 1817	*Angaria nodosus* (Reeve, 1842)
T. helicineus (282)	*T. helicoides* Gmelin, 1791	*Aulopoma helicoides*
Nerita pellis tigrina (289)	*Cochlis tigrina* Röding, 1798	*Natica tigrina*
N. zikzak (289)	*Nerita fulminea* Gmelin, 1791	*Natica fulminea*
N. rufescente varia (290)	*N. cruentata* Gmelin, 1791	*Natica fulminea*
N. adusta (290)	*N. melanostoma* Gmelin, 1791	*Mammilla melanostoma*
N. tessellata (295)	*N. tessellata* Gmelin, 1791	*Nerita tessellata*
N. pica (295)	*N. pica* Gmelin, 1791	? *Nerita tessellata*
N. variegata (296)	*N. versicolor* Gmelin, 1791	*Nerita versicolor*
N. nigerrima (294)	*N. aterrima* Gmelin, 1791	*Nerita aterrima*
Haliotis iridis (297)	*Haliotis iris* Gmelin, 1791	*Haliotis iris*
H. plicata (297)	*H. australis* Gmelin, 1791	*Haliotis australis*
Patella magellanica (302)	*Patella ferruginea* Gmelin, 1791 [non *P. magellanica* Gmelin, 1791]	*Patella ferruginea* *Nacella magellanica*

7. Apart from his references to Martini & Chemnitz names, Karsten introduced only six new specific names for mollusks, four of which are listed by Sherborn (1902). Two of these names refer to species not noted by earlier authors: *Nerita reticulata* (p. 296, fig. 8), now known as *Nerita signata* Lamarck, 1822 and *Conus aulicus* var. *singularis* (p. 198, fig. 1), which appears to be *Conus terminus* Lamarck, 1810. The other four names are *Voluta subpraeputium* (p. 227, fig. 4), probably a juvenile of *Melo melo* [Lightfoot, 1786]; *Nerita chrysostomus* (p. 290, fig. 7), which is *Chrysostoma paradoxa* (Born, 1780); *Murex cancellatus* (p. 266, fig. 6), which is *Phos senticosus* (Linnaeus, 1758), and *Murex denticulatus* (p. 260) which was not illustrated and is therefore of unknown identity. Tursch, Duchamps & Greifeneder (1994) have begun using some of Karsten's names in preference to well-known later names; in particular, they have replaced *Oliva vidua* (Röding, 1798) with *Oliva nigrita* Karsten, 1789 and *Oliva tessellata* Lamarck, 1811 with *Oliva olivacea* Karsten, 1789. This action contravenes Article 23b of the Code, which states that 'The Principle of Priority is to be used to promote stability and is not intended to be used to upset a long-accepted name in its accustomed meaning through the introduction of an unused name that is its senior synonym'. Apart from the 1994 papers by Duchamps & Tursch and Tursch, Duchamps & Greifeneder, none of Karsten's names is in current use and disruption to zoological nomenclature would not result from the suppression of Karsten's work. Although lectotype designations for all the names in the second column of the list in para. 6 (above) have not been traced, it is clear that many would become objective or subjective junior synonyms, or junior homonyms, if Karsten's work was accepted as available.

8. An earlier draft of this application (Rosenberg, 1994) was posted in July 1994 on the Internet to more than 300 researchers who subscribe to the Mollusca listprocessor at Berkeley, California (listproc@ucmp1.berkeley.edu). Several comments were received, all supportive; copies of these comments have been given to the Commission's Secretariat. No malacologists objected to the idea of rejecting Karsten's work. I therefore propose that the Commission should suppress this work for nomenclatural purposes because its availability would disturb the stability of nomenclature in the Mollusca.

9. The International Commission on Zoological Nomenclature is accordingly asked:

(1) to use its plenary powers to suppress for nomenclatural purposes the work by D.L.G. Karsten (1789) entitled *Museum Leskeanum, regnum animale, quod ordine systematico*;

(2) to place the above work on the Official Index of Rejected and Invalid Works in Zoological Nomenclature.

References

Born, I. 1780. *Testacea Musei Caesarei Vindobonensis*. xxxvi, 442, 17 pp., 18 pls. Kraus, Vienna.

Bruguière, J.G. 1789, 1792. *Encyclopédie Méthodique. Histoire Naturelle des Vers*. vol. 1, part 1, pp. 1–344 (1789); part 2, pp. 345–757 (1792). Panckoucke, Paris.

Cleevely, R.J. 1983. *World palaeontological collections*. 365 pp. British Museum (Natural History), London.

da Costa, E.M. 1778. *Historia Naturalis Testaceorum Britanniae, or The British conchology*. xii, 254, viii, 17 pls. Author, London.

Dance, S.P. 1986. *A history of shell collecting*. xv, 265 pp., 32 pls. Brill, Leiden.

Duchamps, R. & Tursch, B. 1994. A note on the *Museum Leskeanum*. *Apex*, **9**(1): 11–16.

Gmelin, J.F. 1791. *Caroli a Linné Systema Naturae*. Ed. 13. Vol. 1 (6, Vermes), pp. 3021–3910. Lipsiae.

Karsten, D.L.G. 1789. *Museum Leskeanum, regnum animale, quod ordine systematico*. [44], xlv, 320 pp., 8 pls. Müller, Lipsiae.

Linnaeus, C. 1758. *Systema Naturae*, Ed. 10, vol. 1. 824 pp. Salvii, Holmiae.

Linnaeus, C. 1767. *Systema Naturae*, Ed. 12, vol. 1, part 2. Pp. 533–1327. Salvii, Holmiae.

Martini, F.H.W. & Chemnitz, J.H. 1769–1788. *Neues systematisches Conchylien-Cabinet*, vols. 1–10. (Vols. 1–3 by Martini, 4–10 by Chemnitz.) Raspe, Nürnberg.

Peters, J.C. 1931–1987. *Check-list of birds of the world*, vols. 1–16. Harvard University Press, Cambridge, Mass.

Pfeiffer, L. 1840. *Kritisches Register zu Martini und Chemnitz's Systematischen Konchylien-Kabinet*. viii, 112 pp. Fischer, Kassel.

Pilsbry, H.A. 1888. Monograph of the families Neritidae, Neritopsidae, Adeorbiidae, Cyclostrematidae, and Liotiidae. *Manual of Conchology*, **10**: 3–160.

Rehder, H.A. 1945. A note on the Bolten Catalogue. *Nautilus*, **59**(2): 50–52.

Richardson, [C.]L., Abbott, R.T. & Davis, G.M. 1979. Early references to the figures in the Conchylien Cabinet of Martini and Chemnitz: volumes I–XII. *Tryonia*, no. 2, parts 1–2, 427 pp., 432 pls., 70 vignettes.

[Röding, P.F.] 1798. *Museum Boltenianum sive catalogus cimeliorum, pars secunda*. viii, 199 pp. Trappii, Hamburg.

Rosenberg, G. 1994. On the non-binomial nature of *Museum Leskeanum* (Karsten 1789). Mollusca archive at http://UCMP1.Berkeley.edu/mollusca.html (Internet).

Sherborn, C.D. 1902. *Index Animalium, 1758–1800*. lix, 1195 pp. Cambridge University Press, Cambridge.

Tursch, B., Duchamps, R. & Greifeneder, D. 1994. Studies on Olividae. XX. The pre-Lamarckian names for *Oliva* species. *Apex*, **9**(2/3): 51–78.

Vokes, E.H. Catalogue of the genus *Murex* Linné (Mollusca: Gastropoda); Muricinae, Ocenebrinae. *Bulletin of American Paleontology*, **61**(268): 1–141.

Zschach, J.J. 1788. *Museum N.G. Leskeanum, pars Entomologica*. 136 pp., 3 pls. Lipsiae.